

### **ABSTRACT**

Disclosed are a GaN-based semiconductor light emitting diode and a method for manufacturing the same. The GaN-based semiconductor light emitting diode includes a substrate on which a  
5 GaN-based semiconductor material is grown; a lower clad layer formed on the substrate, and made of a first conductive GaN semiconductor material; an active layer formed on a designated portion of the lower clad layer, and made of an undoped GaN semiconductor material; an upper clad layer formed on the active  
10 layer, and made of a second conductive GaN semiconductor material; an alloy layer formed on the upper clad layer, and made of an alloy selected from the group consisting of La-based alloys and Ni-based alloys; and an TCO layer formed on the alloy layer. The alloy layer has a high transmittance and forms Ohmic contact, thus  
15 reducing a contact resistance.